
वस्त्रादि — जूट करघों में प्रयुक्त कपास
कंक्तन — विशिष्टि
(तीसरा पुनरीक्षण)

Textiles — Cotton Cambs for use in
Jute Looms — Specification
(Third Revision)

ICS 59.120.30

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FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Textile Machinery and Accessories Sectional Committee had been approved by the Textiles Division Council.

This standard has been formulated to provide guidance to the manufacturers of cotton cambs for use in jute looms. This standard would ensure the manufacture of cotton cambs of acceptable quality.

This standard was originally published in 1961 and subsequently revised in 1974 and 1990. This standard was revised in This revision has been made in the light of experience gained since its publication and to incorporate the following major changes:

- a) Title of the standard has been modified;
- b) Marking, packing and sampling clauses have been modified; and
- c) References to Indian Standards have been updated.

The composition of the committee responsible for the formulation of this standard is listed in Annex C.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***TEXTILES — COTTON CAMBS FOR USE IN JUTE LOOMS —
SPECIFICATION***(Third Revision)***1 SCOPE**

This standard specifies requirements for cotton cambs for use in jute looms.

2 REFERENCES

The standards listed in Annex A contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed in Annex A.

3 MANUFACTURE AND WORKMANSHIP

In a camb, the healds shall be bound as shown in Fig. 1. All the mail eyes in a camb shall be of same type (dimensions) and so threaded that all are set at the same angle. The eyes shall be at the centre of healds unless otherwise specified by the purchaser. The cambs shall be varnished all along the depth except for small portions of camb near the top and bottom foundation bands. The depth of the unvarnished portion of each side of cambs shall not exceed 25 mm. The varnished surface should be smooth, glossy and pliable and free from lumps, cracks and stickiness.

4 REQUIREMENTS**4.1 Mail Eye**

Mail eyes shall conform to the requirements of

Table 1 unless otherwise specified in the contract or order.

4.2 Distance from top to the centre of the mail eye, F_1 (see Fig. 1) shall be same as distance from the centre to the bottom of the mail eye, F_2 .

4.3 Twine

4.3.1 Unless otherwise specified in the contract or order, the count of yarn used and number of folds applied in the twine used for the top and bottom leashes (see Fig. 1) of the camb shall be as follows:

<i>Porter of Camb</i>	<i>Count of Yarn</i>	<i>No. of Folds</i>
$4\frac{1}{2}$ to 8	29.5 tex (20 ^s cotton)	32
Above 8	29.5 tex (20 ^s cotton)	28

4.4 Depth of Camb

4.4.1 Unless otherwise specified in the contract or order, the depth of camb (inclusive of depth of foundation bands) shall be 355^{+3}_{-1} mm when tested according to the method given in Annex B.

NOTE — For obtaining effective depth of camb, the observed values should be corrected for thickness of the top and bottom foundation bands.

4.5 Width of Camb

4.5.1 The distance between the two extreme healds in a set (overall width) shall be as declared by the manufacturer or as marked on it.

Table 1 Requirements of Mail Eyes
(Clause 4.1)

Sl No.	Type	Requirements					
		Porter of Cambs	Dimensions (<i>see</i> Fig. 1)				
			A mm	B mm	C mm	D mm	E mm
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	1	$4\frac{1}{2}$ to 8	18.0	1.50	6.0	2.5	8.0
ii)	2	$8\frac{1}{2}$ to $10\frac{1}{2}$	16.0	1.32	5.0	2.0	7.0
iii)	3	11 to $17\frac{1}{2}$	16.0	1.25	5.0	2.0	6.0
iv)	4	$5\frac{1}{2}$ to 14	18.0	1.40	6.0	2.5	8.0
Tolerance, - mm		-	± 1.5	± 0.12	± 1.0	± 0.2	± 1.0
NOTE — Porter of camb = $\frac{939.8 \text{ mm (or 37 inch)}}{\text{No. of millimetres (or inches) to cover 20 healds on one camb}}$							

5 MARKING

5.1 Each case/carton of cambs shall bear the following information:

- Porter of camb, width of camb and source of manufacture;
- Dimension of camb;
- Material of camb;
- Number of cambs;
- Gross and net mass;
- Lot/batch number;

- Country of origin; and
- Any other information required by the law in force and/or by the buyer.

5.2 BIS Certification Marking

The cotton cambs conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

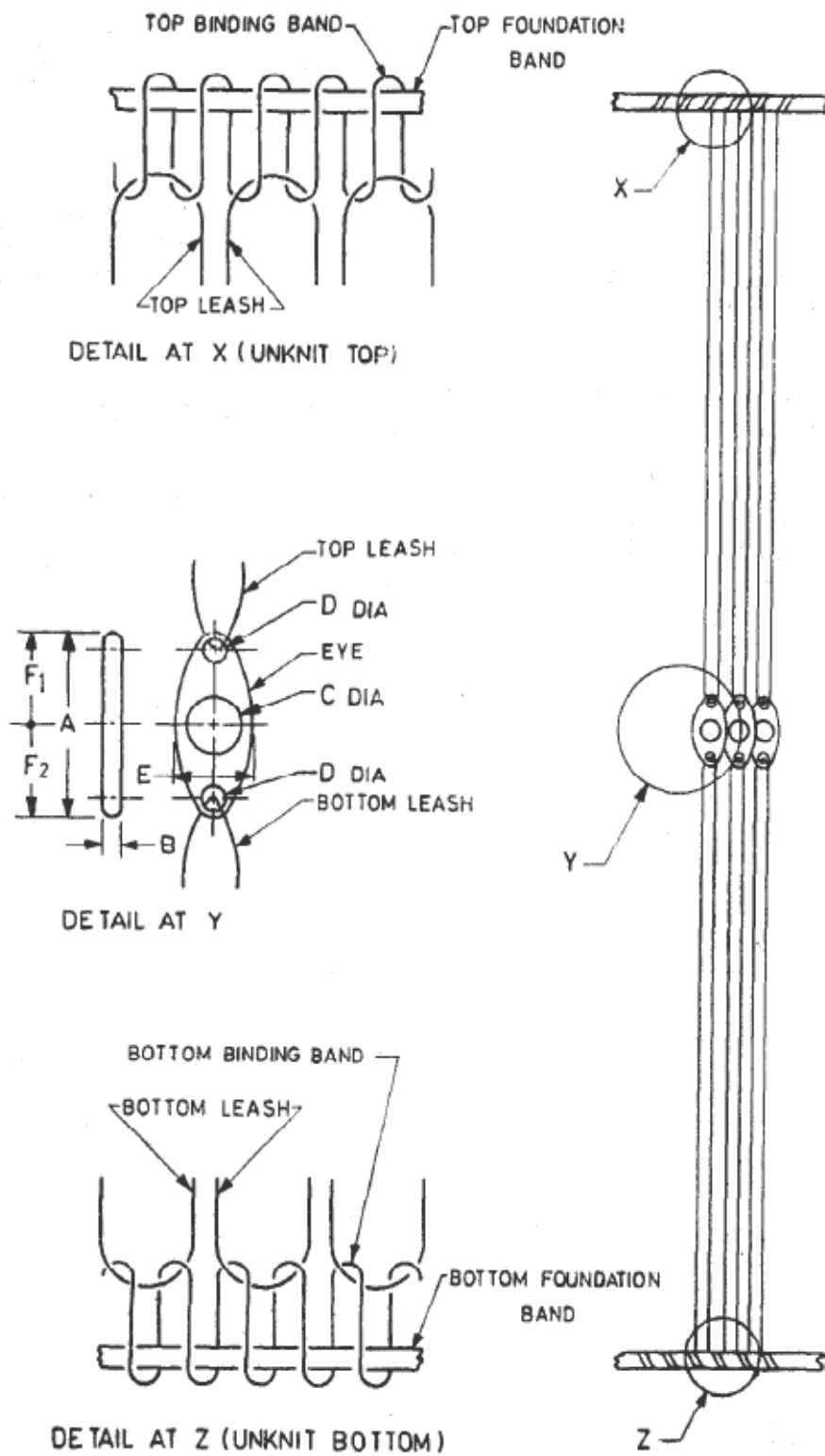


FIG .1 COTTON CAMBS FOR JUTE LOOMS

6 PACKING

Each camb, while it is on the stave during the process of varnishing, shall be 'folded' and 'leashed' by the tail ends of the top and bottom foundation bands, so as to separate the odd and even eyes. A suitable number of these cambs tied together (forming a bundle) shall be wrapped in waterproof paper (*see* IS 3962).

7 SAMPLING

To ascertain the conformity of cotton cambs for use in jute looms, to the requirements of this specification, single sampling plan with Inspection Level I and Acceptance Quality Level (AQL) of 2.5 percent given in Tables 1 and 2-A of IS 2500 (Part 1) shall be followed unless otherwise agreed to between the buyer and the seller.

ANNEX A
(Clause 2)

LIST OF REFERRED INDIAN STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
IS 2500 (Part 1) : 2000	Sampling procedures for inspection by attributes: Part 1 Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection (<i>third revision</i>)	IS 3962 : 1967	Specification for waxed paper for general packaging

ANNEX B
(Clause 4.4.1)

METHOD FOR DETERMINATION OF DEPTH OF CAMB

B-1 ATMOSPHERIC CONDITIONS FOR TESTING

B-1.1 The test shall be carried out in the prevailing atmospheric conditions with relative humidity between 40 percent to 90 percent.

B-2 TEST PROCEDURE

B-2.1 Take a stand provided with two hooks (at a distance of 70 cm to 75 cm from each other) to support the top stave of the camb, the depth of which is to be measured. Hang two pans at the bottom stave exactly below the two hooks on the top stave. The depth of camb is measured from outside edge of the

top foundation band to the outside edge of the bottom foundation band by applying the following load:

<i>Resultant Tex (Cotton Count) of Camb Twine</i>	<i>Load on Each Pan</i>
Up to 150 (above 4 ^s)	0
151 to 200 (3 ^s to 4 ^s)	30
201 to 300 (2 ^s to 3 ^s)	40
301 to 600 (1 ^s to 2 ^s)	50
Above 600 (below 1 ^s)	60

ANNEX C
(Foreword)

COMMITTEE COMPOSITION

Textile Machinery and Accessories Sectional Committee, TXD 14

<i>Organization</i>	<i>Representative(s)</i>
Central Manufacturing Technology Institute, Bengaluru	DR NAGAHANUMAIAN (Chairperson)
ATE Enterprises Private Limited, New Delhi	SHRI ABHIJIT KULKARNI SHRI ANIL KUMAR SHARMA (<i>Alternate</i>)
Amritlakshmi Machine Works, Mumbai	SHRI N. K. BRAHMACHARI SHRI N. K. RAUT (<i>Alternate</i>)
Bhowmick Calculator, Kolkata	SHRI GOUTAM BHOWMICK SHRI VIVEKANANDA BHOWMICK (<i>Alternate</i>)
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ICAR-Central Institute for Research on Cotton Technology, Mumbai	DR V. G. ARUDE DR T. SENTHILKUMAR (<i>Alternate</i>)
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The Synthetic and Art Silk Mills Research Association, Mumbai	DR MANISHA MATHUR SHRI SANJAYA SAINI (<i>Alternate</i>)
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Member Secretary
SHRI SWAPNIL
SCIENTIST 'B'/ASSISTANT DIRECTOR
(TEXTILES), BIS

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